

CLAIMS:

1. A guide catheter comprising:
an elongated sheath having proximal end, a distal tip, and an inner channel to
accommodate travel of a medical component;
a first material in the distal tip, wherein the first material is radio-opaque and
echogenic; and
a second material in a wall of the sheath, wherein the second material is radio-
opaque.
2. The guide catheter of claim 1, wherein the first material comprises
tungsten carbide.
3. The guide catheter of claim 1, wherein the first material comprises jet-
milled tungsten carbide particles.
4. The guide catheter of claim 1, wherein the distal tip is formed of a
polymeric material, and the first material comprises tungsten carbide particles
distributed within the polymeric material.
5. The guide catheter of claim 4, wherein the tungsten carbide particles
are distributed within the polymeric material in the amount of approximately 70 to 75
percent by weight.
6. The guide catheter of claim 4, wherein the tungsten carbide particles
are distributed within the polymeric material in the amount of approximately 73 to 74
percent by weight.
7. The guide catheter of claim 4, wherein the tungsten carbide particles
have an average diameter of less than approximately 500 nanometers.

8. The guide catheter of claim 4, wherein the tungsten carbide particles have an average diameter of less than approximately 200 nanometers.

5 9. The guide catheter of claim 4, wherein the sheath includes a number of sheath segments extending along the length of the guide catheter, and each of the sheath segments is formed of a polymeric material containing tungsten carbide particles.

10 10. The guide catheter of claim 1, further comprising a reinforcing braid formed within the sheath, wherein the second material forms at least one strand in the reinforcing braid.

15 11. The guide catheter of claim 10, wherein the second material comprises a material selected from the group consisting of platinum iridium, gold, tantalum, platinum, and tungsten carbide.

20 12. A guide catheter comprising:
an elongated sheath having proximal end, a distal tip, and an inner lumen sized to accommodate travel of medical components; and
a first material in the distal tip, wherein the first material is radio-opaque and echogenic, and includes tungsten carbide particles having an average diameter of less than 500 nanometers.

25 13. The guide catheter of claim 12, wherein the first material comprises jet milled tungsten carbide particles.

30 14. The guide catheter of claim 12, wherein the distal tip is formed of a polymeric material, and the first material comprises tungsten carbide particles distributed within the polymeric material.

15. The guide catheter of claim 14, wherein the tungsten carbide particles are distributed within the polymeric material in the amount of approximately 70 to 75 percent by weight.

5 16. The guide catheter of claim 14, wherein the tungsten carbide particles are distributed within the polymeric material in the amount of approximately 73 to 74 percent by weight.

10 17. The guide catheter of claim 14, wherein the tungsten carbide particles have an average diameter of less than approximately 200 nanometers.

15 18. The guide catheter of claim 14, wherein the sheath includes a number of sheath segments extending along the length of the guide catheter, and each of the sheath segments is formed of a polymeric material containing tungsten carbide particles.

19. The guide catheter of claim 18, wherein the polymeric material comprises a polyether block amide.